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**Datasheet for the decision
of 5 June 2020**

Case Number: T 1160/17 - 3.3.06

Application Number: 10167234.3

Publication Number: 2399979

IPC: C11D3/22, C11D3/37, C11D10/04,
C11D17/00, C11D17/04, C11D1/04,
C11D3/20

Language of the proceedings: EN

Title of invention:
Soluble unit dose articles comprising a cationic polymer

Patent Proprietor:
The Procter & Gamble Company

Opponents:
Reckitt Benckiser (Brands) Limited
Henkel AG & Co. KGaA

Headword:
Soluble unit dose articles comprising a cationic polymer / The
Procter & Gamble Company

Relevant legal provisions:
EPC Art. 123(2), 56

Keyword:

Amendments - added subject-matter (no)
Inventive step - (yes)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

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Case Number: T 1160/17 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 5 June 2020

Appellant: Henkel AG & Co. KGaA
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Respondent: The Procter & Gamble Company
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 15 March 2017
rejecting the opposition filed against European
patent No. 2399979 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman L. Li Voti
Members: P. Ammendola
 S. Fernández de Córdoba

Summary of Facts and Submissions

I. The appeal lies from the decision of the Opposition Division rejecting the oppositions filed against European patent No. 2 399 979.

Claim 1 as granted of this patent defined a **unit dose article** (hereinafter **UD article**) containing a **non-aqueous liquid composition** (hereinafter **NAL composition**) and claim 4 as granted defined a preferred embodiment of the UD article of claim 1.

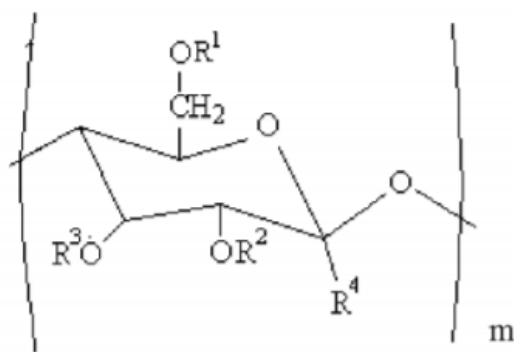
II. In the statement of grounds of appeal opponent 2 (hereinafter **appellant**) argued, *inter alia*, that granted claim 1 was objectionable for added subject matter (Article 100(c)/123(2) EPC) and that claim 4 also lacked of inventive step (Article 100(a) EPC in combination with Articles 52(1) and 56 EPC) in view of the disclosure of D1 (US 2004/0142840 A1) or D4 (WO 2004/056958 A1) in combination with D3 (WO 2007/107215 A1). It also maintained its auxiliary request for oral proceedings submitted with the notice of appeal.

III. The patent proprietor (hereinafter **respondent**) with the reply to the appeal dated 29 November 2017 filed a set of amended claims as **Main Request** in which claim 1 reads:

"1. *A unit dose article containing a non-aqueous liquid composition comprising*

- a) a cationic polymer;*
- b) a fatty acid or salt;*
- c) less than 20 % by weight of water; and*
- d) 1 to 70% by weight of one or more anionic surfactants*

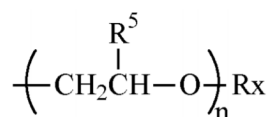
wherein the non-aqueous liquid composition is enclosed in a water-soluble or dispersible film, and the cationic polymer is present in a particulate form, and wherein the anionic surfactant is selected from the group consisting of: C11-C18 alkyl benzene sulfonates C10-C20 branched-chain and random alkyl sulfates, C10-C18 alkyl ethoxy sulfates, mid-chain branched alkyl sulfates, mid-chain branched alkoxy sulfates, C10-C18 alkyl alkoxy carboxylates comprising 1-5 ethoxy units, modified alkylbenzene sulfonate, C12-C20 methyl ester sulfonate, C10-C18 alpha-olefin sulfonate, C6-C20 sulfosuccinates, and mixtures thereof, wherein the cationic polymer is a cationic polysaccharide, and wherein the cationic polysaccharide is a cationic cellulose having the structure:



Structural Formula I

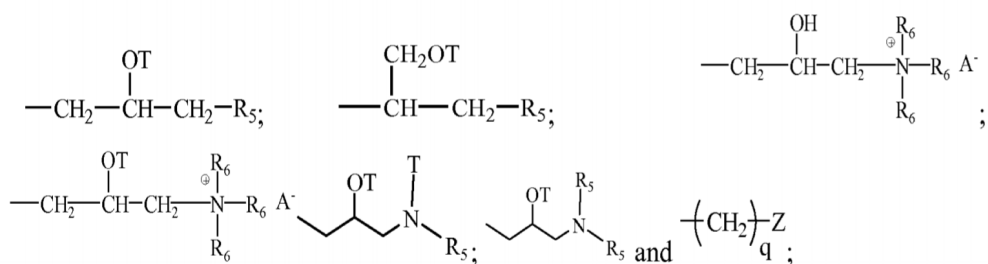
wherein:

- a. m is an integer from 20 to 10,000
- b. each R^4 is H, and R^1, R^2, R^3 are each independently selected from the group consisting of: H; C₁-C₃₂ alkyl; C₁-C₃₂ substituted alkyl, C₅-C₃₂ or C₆-C₃₂ aryl, C₅-C₃₂ or C₆-C₃₂ substituted aryl or C₆-C₃₂ alkylaryl, or C₆-C₃₂ substituted alkylaryl, and

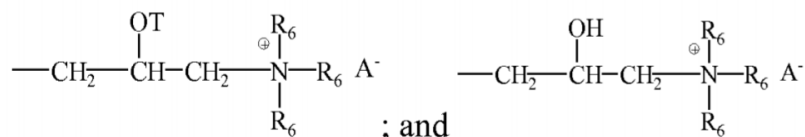


wherein:

n is an integer selected from 0 to 10 and
Rx is selected from the group consisting
of: *R*₅;



wherein said polysaccharide includes at least one
Rx, and said *Rx* has a structure selected from the
group consisting of:



wherein *A* is a suitable anion,

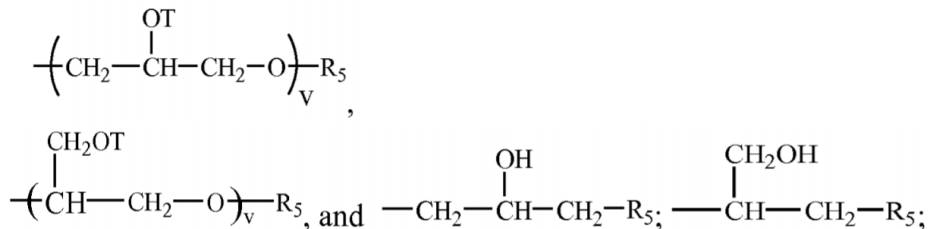
q is an integer selected from 1 to 4;

each *R*₅ is independently selected from the group
consisting of: *H*; *C*₁-*C*₃₂ alkyl; *C*₁-*C*₃₂ substituted
alkyl, *C*₅-*C*₃₂ or *C*₆-*C*₃₂ aryl, *C*₅-*C*₃₂ or *C*₆-*C*₃₂
substituted aryl, *C*₆-*C*₃₂ alkylaryl, *C*₆-*C*₃₂
substituted alkylaryl, and *OH*;

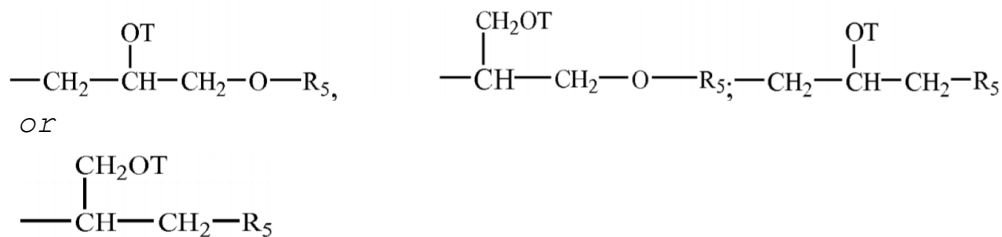
each *R*₆ is independently selected from the group
consisting of: *H*, *C*₁-*C*₃₂ alkyl; *C*₁-*C*₃₂ substituted

alkyl, C₅-C₃₂ or C₆-C₃₂ aryl, C₅-C₃₂ or C₆-C₃₂ substituted aryl, C₆-C₃₂ alkylaryl, C₆-C₃₂ substituted alkylaryl;

each T is independently selected from the group: H,



wherein each v in said polysaccharide is an integer from 1 to 10; the sum of all v indices in each Rx in said polysaccharide is an integer from 1 to 30; and in the last



group in a chain, T is always an H."

Claims 2 to 6 of the Main Request define preferred embodiments of the UD article of claim 1; claim 7 thereof defines a process for preparing the UD article claimed in the preceding claims.

The respondent stressed that claim 1 of the Main Request corresponded to the combination of claims 1 and 4 as granted, against which the appellant had only raised objections of added subject-matter and of lack of inventive step.

IV. Opponent 1 (party as of right in these appeal proceedings) filed no submission as to the substance of the case.

- V. The board summoned the parties to oral proceedings and expressed in a communication dated 16 April 2020 the preliminary opinion that the respondent's Main Request appeared allowable.
- VI. The appellant with letter dated 26 May 2020 withdrew the request for oral proceedings.
- VII. The oral proceedings were therefore cancelled.
- VIII. The **appellant** requested that the decision under appeal be set aside and the patent be revoked.

The **respondent** requested that the patent be maintained in amended form on the basis of the claims of the Main Request filed with letter of 29 November 2017.

Reasons for the Decision

Main Request

- 1. Article 123(2) EPC
 - 1.1 As explained by the respondent in its reply to the grounds of appeal claim 1 of the Main Request corresponds to the combination of claims 1 and 4 as granted.
 - 1.2 The board is satisfied that the subject-matter of the amended claims of the Main Request (see III above) does not extend beyond the content of the application as filed (Article 123(2) EPC).
 - 1.3 Even though the appellant did not take an explicit stance against the claims of the main request, the sole

submissions possibly relevant in these respects are those of section II.1.1. of the grounds of appeal, directed against granted claim 1. These submissions are essentially based on the assumption that the wording of this claim (also identically present in claim 1 of the Main Request) would allow a total amount of anionic surfactants exceeding the limits of 1-70% by weight explicitly disclosed on page 13 of the original application.

- 1.4 This objection of the appellant is found unconvincing because for the skilled reader of claim 1 of the Main Request the feature "d)" (see the passage reading: "*d) 1 to 70% by weight of one or more anionic surfactants*", also identically worded in granted claim 1) requires that (all) the anionic surfactants present in the NAL composition must constitute from 1 to 70% by weight of that composition.

Hence, the skilled person can only reasonably construe the further feature of claim 1 of the Main Request (also identically recited in granted claim 1):

*"and **wherein the** anionic surfactant is selected from the group consisting of: C11-C18 alkyl benzene sulfonates C10-C20 branched-chain and random alkyl sulfates, C10-C18 alkyl ethoxy sulfates, mid-chain branched alkyl sulfates, mid-chain branched alkoxy sulfates, C10-C18 alkyl alkoxy carboxylates comprising 1-5 ethoxy units, modified alkylbenzene sulfonate, C12-C20 methyl ester sulfonate, C10-C18 alpha-olefin sulfonate, C6-C20 sulfosuccinates, and mixtures thereof"* (emphasis added by the board)

as specifying the additional restriction that **in** the previously-define NAL composition - i.e. a composition

in which anionic surfactants must be present in a total amount of from 1 to 70% by weight - (all) the anionic surfactants (present therein) must also belong to the recited group. In other words, the presence of anionic surfactants different from those of the recited group is implicitly excluded by the wording of claim 1 of the Main Request and, thus, this claim also implicitly limits to 1 to 70% by weight of the NAL composition, the quantity of (all) anionic surfactants possibly present therein (as also undisputedly disclosed in the application as filed).

- 1.5 Therefore claim 1 complies with the requirements of Article 123(2) EPC.

- 2. Inventive step
 - 2.1 Claim 1
 - 2.1.1 The sole appellant's submissions possibly relevant in respect of the compliance of claim 1 of the Main Request with the requirements of Article 56 EPC, are those of section II.3.1.2 of the grounds of appeal. They were directed against granted claim 4. However, since the subject-matter of claim 1 of the present Main Request undisputedly is the same as that of granted claim 4, they are identically applicable to claim 1 under consideration.

 - 2.1.2 The appellant did not dispute the finding of the opposition division that the closest prior art is represented by the water-soluble pouches containing fabric treatment composition disclosed in Example VI of D1 (or in the identical Example VI of D4, in the same patent family) which composition comprises guar gum as cationic fabric softener active.

- 2.1.3 The appellant submitted in essence that, in spite of the absence of any indication in D1 (or D4) that in this prior art example the cationic guar gum was in a particulate form, it was nevertheless possible for the skilled person to establish that this guar gum was necessarily present in the cited examples in a particulate form. Hence,
- the subject-matter of claim 1 only differed from the prior art of departure in that a cationic cellulose of Structural Formula I is present instead of the (particulate) cationic guar gum and
 - the sole technical problem plausibly solved by the UD article of claim 1 under consideration vis-à-vis this prior art was the provision of an alternative.

The Board agrees for the sake of argument in the appellant's favour that the guar gum in Example VI of D1 (or D4) is indeed already in a particulate form and that the technical problem underlying the invention has to be formulated as the provision of a unit dose article containing an alternative non-aqueous liquid composition.

- 2.1.4 In the appellant's view, since D3 already disclosed cationic celluloses of Structural Formula I as cationic fabric softeners for NAL compositions (such as the cationic cellulose labelled as "LR-400 Polymer", used in the Examples of D3), the combination of D1 (or D4) with D3 would render obvious to solve the posed technical problem by replacing the specific particulate cationic fabric softener (guar gum) used in Example VI of D1 (or D4) e.g. with the cationic cellulose "LR-400 Polymer" described in D3. Thus, for the skilled person no inventive step would be necessary to arrive at the subject-matter of claim 1 under consideration.

2.1.5 The board stresses however that there is no evidence on file that upon replacing the guar gum fabric softener in Example VI of D1 (or D4) with (e.g. a similar amount of) the cationic cellulose "LR-400 Polymer" of D3, the skilled artisan would inevitably arrive at further UD articles in which the "LR-400 Polymer" is in a particulate form.

Moreover, the structural differences manifestly existing between the guar gum and "LR-400 Polymer" do not justify any sound prediction as to whether the latter is as insoluble as the former in the mixture of solvents and water (and other ingredients) present in Example VI of D1 (or D4).

2.1.6 Hence, to arrive at the subject-matter of claim 1 under consideration it is not sufficient to just replace the specific particulate cationic fabric softener used in Example VI of D1 (or D4) e.g. with the specific cationic celluloses described in D3 (as suggested by the appellant), but it rather requires to carry out such replacement in such a way that (also) this latter is (similarly to the guar gum) finally present in the NAL composition in a particulate form.

Therefore, and since the teaching of D3 is not limited to the use of the specific cationic fabric softener of the examples, at least one purposive selection needs to be made among all possible alternatives already encompassed by D3: namely, the selection of those among the cationic fabric softeners disclosed in D3 which, once incorporated in the composition of Example VI of D1 in replacement of the guar gum, also are in a particulate form. Moreover, in the absence of any teaching in this direction contained in D3, further

purposive selections in terms of the composition of the solvent mixture may also turn out necessary in order to actually arrive at NAL compositions similar to that present in the prior art of departure, but wherein the cationic fabric softeners suggested in D3 are in a particulate form.

2.1.7 Hence, even if it is assumed in favour of the appellant that the technical problem solved by the subject-matter of claim 1 is just the provision of an alternative to the prior art and that the skilled reader of D1 may predict that the guar gum present therein is in a particulate form, still it remains crucial that neither D1 (or D4) nor D3 explicitly or implicitly disclose teachings focusing on the particulate form of the cationic fabric softener present in the NAL composition (i.e. no teachings possibly motivating the skilled person to make the purposive selection(s) discussed above).

2.1.8 Accordingly, it is immediately apparent to the board that only with the benefit of hindsight a skilled person would be motivated to replacing the guar gum (allegedly present in a particulate form) in Example VI of D1 (or D4), by means of the cationic cellulose disclosed in the prior art such as the cationic cellulose "LR-400 Polymer" of D3 so as to arrive at UD articles containing a NAL composition in which the cationic cellulose is in particulate form.

2.1.9 The board concludes therefore that the appellant failed to render it plausible that the subject-matter of the claim 1 of the Main Request only represented an obvious alternative to the prior art and, thus, that this claim did not comply with the requirements of Article 56 EPC.

2.2 The same reasons on the lack of plausibility of the appellant's objection of lack of inventive step also necessarily apply in respect to the preferred embodiments of the UD article of claim 1 that are defined in the dependent claims 2 to 6 as well as to the process for preparing this UD article defined in claim 7.

2.3 Thus, the Main Request complies with the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division with the order to maintain the patent with claims 1 to 7 of the Main Request filed with letter of 29 November 2017 and a description to be adapted thereto.

The Registrar:

The Chairman:



A. Pinna

L. Li Voti

Decision electronically authenticated